



East Valley Water District Advanced Metering Infrastructure Pilot Implementation Project

ATTACHMENT 3 WORK PLAN

Description of the Project:

The East Valley Water District (EVWD/District) proposes to implement an Advanced Metering Infrastructure (AMI) Pilot Project among 6,100 connections in the most disadvantaged communities within the District of Highland.

EVWD currently has 20,670 connections with manual read meters. These are mechanical devices installed on customer premises that measure water usage primarily for billing purposes. Traditional metering operations involve basic functions such as meter reading, connecting and disconnecting service, and supporting customer billing requests. Many of these functions have been performed manually and typically involve sending service trucks to meter locations. The meter reading function involves several types of activities such as on-cycle readings, off-cycle readings, and special requests. Traditionally, on-cycle readings occur monthly while off-cycle readings occur as a result of service switching, or in response to customer requests, and may occur at any time during the billing cycle.



Example of manual meter reading.

With the introduction of an AMI system, EVWD will be able to take advantage of flexible two-way communications at headquarters that will reduce costs associated with manual meter reads (primarily staff time and vehicle fuel consumption) along with reducing system water loss through immediate identification of leaks, and reducing customer water usage, due to leaks and overwatering. In turn, these reductions will result in lower customer costs.

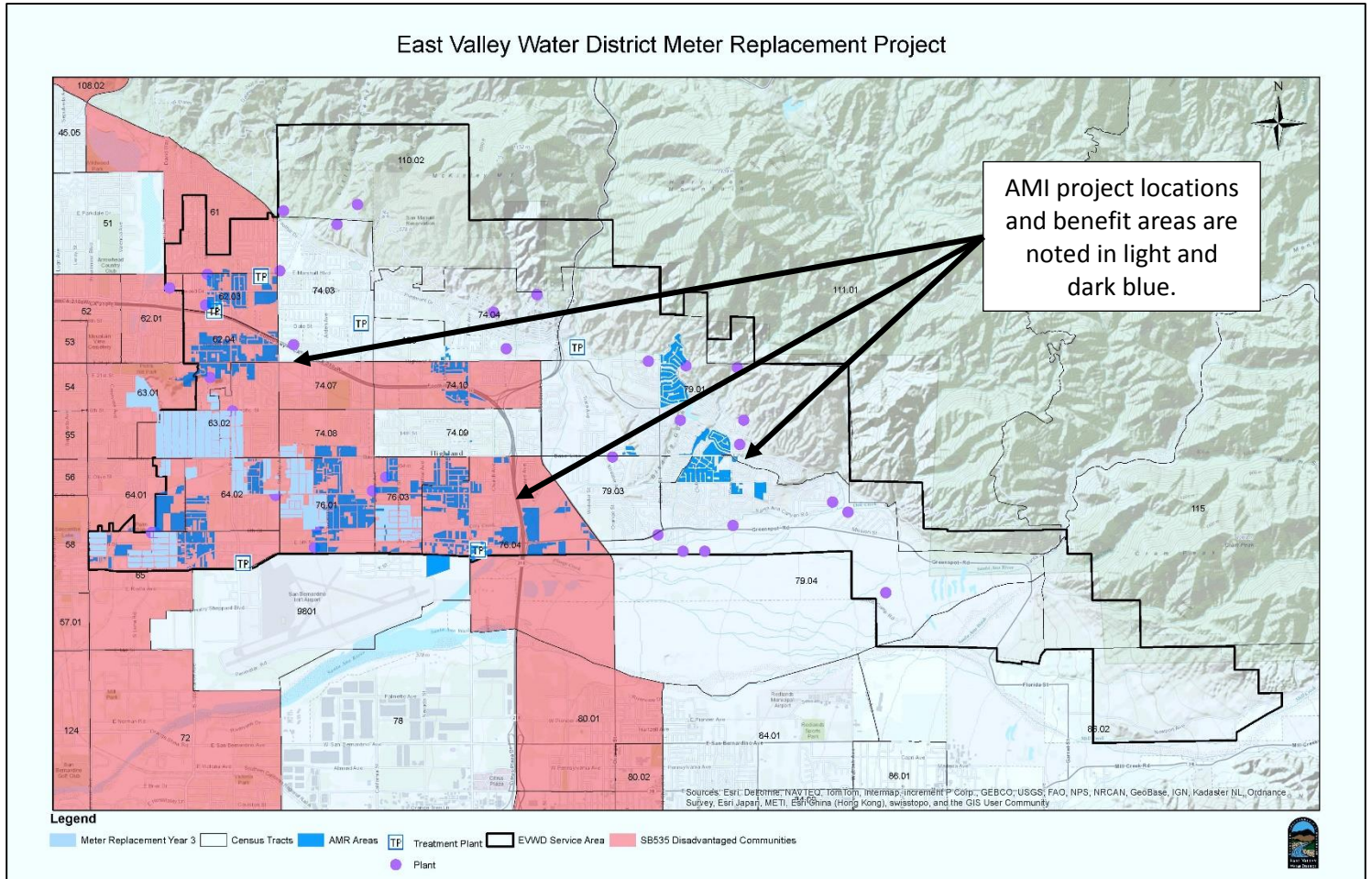
The objectives of the program are threefold: 1) to reduce energy costs; 2) to reduce greenhouse gas emissions through reduced vehicle miles, emissions and fuel consumption; and 3) to reduce water usage by real-time identification of leaks and overwatering. Benefits to the customers include lower water and energy costs along with improved customer service and greater customer participation/ satisfaction.

The 6,100 pilot AMI project will be implemented primarily in areas that are considered disadvantaged according to CalEPA for purposes of SB 535. The areas represent the 25 percent highest-scoring census tracts in CalEnviroScreen 2.0. See Exhibit 1 on the next page for EVWD service area and project location.



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Exhibit 1: East Valley Water District Project Location Map



As mentioned above, the District’s pilot AMI program will focus exclusively on installation and/or retrofit of meter transmission units (MTUs) for approximately 6,100 connections. The meter replacements will take place in the following census tracts: 110.02, 62.03, 123, 74.04, 63.02, 74.07, 74.08, 74.10, 79.01, 76.01, 76.03, 76.04, and 79.04. To review the map in more detail, please go to “Att3_WE14_EVWD_WorkPlan_Project Map_2ofTotal2”.

The AMI fixed-network, flexible two-way communication system will enable EVWD to more efficiently manage water distribution by remotely managing metering assets, and allow EVWD customers the ability to detect leaks, view water usage, set alerts, and gather reports about their home water system in real time through the wireless sensor network.



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Project Proponent/Partner (if applicable):

EVWD will be the sole recipient of the award and will be responsible for utilizing in-house staff and a contracted vendor for meter replacement as appropriate. The District will be responsible for all oversight including compliance with all grant requirements.

WORK PLAN TASKS

Task 1: Project Grant Agreement, Administration, Labor Compliance and Reporting:

East Valley Water District staff will provide administrative oversight for the project. Activities will include reviewing and executing the grant agreements and contracts, attending meetings, maintaining grant and project files, preparing and processing requests for reimbursements, preparing updates for executive management and Board of Directors, ensuring grant agreement compliance, coordinating any audit request and/or examination of records by DWP, or independent auditors, and maintaining all records for at least three years after the project is closed out. EVWD staff will also provide all required Labor Compliance Program information to DWR.

Deliverables include:

- Fully executed Grant Agreement
- Meeting agenda and minutes.
- Preparation of invoices.
- Submission of quarterly and final reports.
- Submission of Labor Compliance Program.

Task 2: Easement(s):

No easements are anticipated for this AMI installation project. All activity will take in the locations of existing meters.

Deliverables include:

- Not Applicable.

Task 3. Project Evaluation and Design

Sub-task 3.1: *Negotiate with Southern California Gas Company, Issue RFQ, Procure Consultant, Kick-off Meeting* - EVWD will conduct final negotiations with the Southern California Gas Company to participate in the proposed pilot program using the Gas Company's fixed data network for AMI infrastructure. Using a "shared network," the District will take advantage of Aclara's STAR technology for water applications. This methodology will offer increased utility operation efficiency while minimizing the deployed "carbon footprint." EVWD will contract with the Gas Company for an annual per meter basis for the use of their data collection system, in addition to purchasing approved data collectors and participation in an approved customer data portal. The District will then prepare and issue a Request for



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Qualifications (RFQ) and select a consultant to help implement the project alongside in-house staff. District-approved procurement procedures will be followed and the Board of Directors will approve the selection of the consultant. District staff, the Southern California Gas Company, and the Consultant will meet to review the project's goals, objectives, tasks, and timeline; the District's expectations; and DWR grant requirements. The Project Kick-off Meeting will outline the plan for completing all tasks. The Project Kick-off Meeting will be led by the District, and all key staff will be required to attend.

Deliverables include:

- Final Agreement between EVWD and Southern California Gas Company.
- Request for Qualifications document developed and posted/advertised.
- List of proposals received, reviewed, and ranked (interviews may be scheduled for highest ranking proposals).
- Executed agreement with successful implementation consultant.
- Agenda and meeting minutes from kick-off meeting.
- List of tasks necessary for successful completion of project.

Sub-task 3.2: Design/Location/Estimate Work – EVWD will develop all design and location plans along with final estimates of equipment and installation costs prior to implementing the proposed AMI system.

Deliverables include:

- Development of detailed installation plan.
- Development of estimated equipment and installation cost estimate.

Task 4: Environmental Documentation:

The AMI project is considered categorically exempt (CE) as the project will take place at 6,100 existing metered locations, and other previously-disturbed areas of District property.

Deliverables include:

- Not applicable.

Task 5: Permitting:

Not applicable. EVWD does not anticipate that permits will be required for the AMI Project. All Meter Transmission Units (MTUs) will be installed in existing EVWD water meters.

Deliverables include:

- Not applicable.

Task 6: Proposal Monitoring Plan:

This task provides for all monitoring and performance requirements as established by the DWR during the grant agreement development process. At this time, EVWD believes the monitoring plan will be for one year post-implementation based on the type of project proposed. The water



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and energy savings are not estimated to change significantly from year-to-year and, therefore, only one year of reporting is expected.

EVWD will prepare a Proposal Monitoring Plan that will measure actual water and energy savings of the 6,100 AMI connections compared to baseline measurements that were established prior to implementation. The District will determine usage rates based on AMI data along with water bills, and other sources to determine the actual amount of water used and conserved post-upgrade of the AMI meters. The District will be responsible for preparing and completing the Project Monitoring Plan (PMP). The PMP will be submitted to the State prior to the disbursement of funds for implementation activities.

Deliverables include:

- Development of a Proposal Monitoring Plan.

Task 7: Project Implementation:

This is a simple implementation plan:

Sub-task 7.1: Kickoff Meeting - EVWD will hold a kick-off meeting with the contracted vendor and refine the timeline and expectations.

Sub-task 7.2: Customer Outreach - EVWD, in coordination with Contractor support, will alert 6,100 customers of the system upgrade and provide education regarding the logistics and benefits of the new system. Outreach to these customers will include mailings, door-to-door direct communication, and flyers in both English and Spanish.

Sub-task 7.3: Software Setup, Implementation and Training – EVWD, in coordination with Contractor support, will coordinate setup of all necessary software, configuration, testing and deployment of equipment including the new web-based customer portal. Training will be held for 15-20 staff from multiple disciplines on installation of the MTUs, upgrading of the existing meters, use of the handheld PCs, installation and use of software, and customer billing under the new data management system.

Sub-task 7.4: Installation – EVWD, in coordination with Contractor, will install/test the advanced meter data management system that will provide timely, high-resolution meter reading and enable EVWD to eliminate on-site visits and estimated reads, reduce theft and loss, and implement time-of-use billing. The system will support two-way communication between the end-points and EVWD headquarters. Technicians will upgrade and/or install 6,100 Meter Transmission Units (MTUs) depending upon the type of meter at a specific location. Approximately 3,600 are already AMR meters and will require only radio receivers and meter lids. Approximately 2,500 are traditional manual read meters and will require new meters, along with radio receivers and meter lids.

Deliverables include:

- Meeting minutes.



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- Inspection Checklists.
- Training lists.
- Invoices.
- Photographs.
- Project Completion Verification.